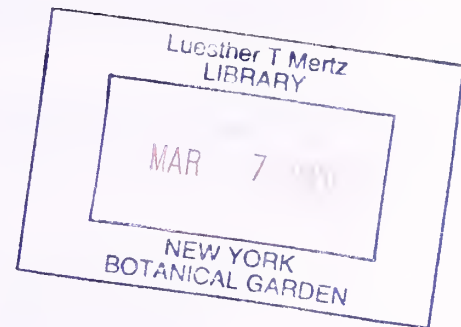


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SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB
SPRING 2001



Shortia galacifolia

Oconee Bells

WESTERN CAROLINA BOTANICAL CLUB - 2001

President: Bonnie Arbuckle
Vice President: Helen Smith
Secretary: Peggy Ellis

Treasurer: Rachel Conway
Recorder: Betty Jones
Historian: Dana Herman

From the President..... Bonnie Arbuckle

Many people make resolutions at the beginning of a new year. They usually resolve to change their habits or physical shape. This year I have resolved to look more closely at shapes as I walk.

When the sky is "Carolina Blue", cloud formations and tree silhouettes are strikingly beautiful. There is a remarkable contrast between the dark green of the evergreens and the gray lines of deciduous tree branches. On my walks I most often see white pines (*Pinus strobus*) that grow tall and straight as a ship's mast. Was it the white pine that was harvested by the British for that purpose? Another tree with a straight trunk is the tulip tree (*Liriodendron tulipifera*). Most of their seeds have been scattered by the wind but some still appear to have wooden cups on their branches. This tree is favored by squirrels for nesting and large leaf nests are clearly visible.

Some of the plants have swollen buds that are ready to produce spring flowers. The dogwood and rhododendron are just waiting for warm days to bring forth their early blossoms.

Yesterday the sky had a leaden hue
the same shade as the tiny catkins
emerging on the willow by the gate.

What have you seen on your winter walks?

Salix sericea

Silky Willow



Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.

Mr. and Mrs. Henry B. Burton: 311B Beatrice St., Greenville, SC 29611

Elizabeth R. Craig: 18 Riverwood Dr. E., Burnsville, NC 28714-9513

Elizabeth "Bet" Fontaine: 106 Robin Crest Drive, Hendersonville 28791, 890-2277. A native of WV, she became a master gardener at Virginia Institute of Technology at Blacksburg, Va. She collected herbarium specimens for Dr. Core, author of the Flora of West Virginia.



Linda and J. Edgar McFarland: 200 Crum Drive, Lake Junaluska, N.C. 28745, 828-456-3849

Address Changes:

Betty Carlson, P.O. Box 563, Candler, N.C. 28725 (828) 670-6702
Barbara Center, 18 Fairway Lane #146, Dillard, Ga. 30537 (Summer address)
Suzanne Huie, 664 Greenville Hy, Apt 4K, Brevard NC 28712-8526
Ivan and Harriet Kuster, 70 Oak Street, apt 102, Tryon 28782
Nancy Meister, 402 Laurel Oak Lane, Hendersonville, N.C. 28791
Millie Pearson, 3148 Pearson Falls Road, Saluda, N.C. 28773
Grace Rice, 526 Boscoe Court, Santa Maria, CA 93454
Henry & Therese Smoke, 130 Hague Drive, Columbus, N.C. 28722

Member News:

Elisabeth Feil was elected to the Board of the Botanical Gardens at Asheville at their annual meeting on February 4, 2001.

Membership Dues were renewable the first of January. If the mailing label on the back of your issue of SHORTIA has a RED DOT this will be your last issue of the newsletter and we cannot include your name on the new membership list to be mailed next month. To renew, send the \$12 dues to our Treasurer, Rachel Conway at 211 Aldersgate Circle, Asheville, N.C. 28803.

Club Receives Award

Cindy Carpenter, Interpretive Specialist at the Pisgah Forest's Cradle of Forestry, presented the Club with an award from the U.S. Forest Service for the two year study the Club carried out at the Cradle. The award reads: "The U.S. Department of Agriculture Certificate of Appreciation [is] Awarded to Western Carolina Botanical Club for dedicated volunteer service to the Cradle of Forestry completing plant surveys of the Biltmore Campus and Forest Festival Trails. 1999-2000." Dated: January 12, 2001 and signed by Art Roe, Pisgah District Ranger. The award was presented at the annual meeting in January.

Eight club members visited the Cradle monthly to record the plants on the trails. They were: Peggy Ellis, Elisabeth Feil, Betty Jones, Elaine Montgomery, Erika Parmi, Helen Smith with Bonnie Arbuckle and Anne Ulinski serving as co-leaders.

e-mail Addresses

At a recent board meeting it was decided to compile a list of the e-mail addresses of our members. In the future this can be included with the once a year membership list. If you want your e-mail listed, please send it to Bonnie Arbuckle <barbuckle@brinet.com>.

Financial Report

Fiscal Year Ending December 2000

RECEIPTS

Membership dues 1224

Donations 147

TOTAL RECEIPTS

DISBURSEMENTS 1371

Mailings (SHORTIA, Program
(Schedules and Membership Lists)* 727

Microphone/Speaker 117

Copying/Office Supplies 91

Meeting expenses 88

Plant lists 65

Contributions 55

TOTAL DISBURSEMENTS 1143

RECEIPTS OVER DISBURSEMENTS 228

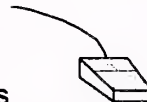
**Expenses include postage*

This report has been consolidated and adjusted
to show both cash and accrued receipts and
disbursements.

Notes from the Past

The first meeting of the Western Carolina Botanical Club was held almost 28 years ago on March 18, 1973. The President was Lincoln Highton; Vice President, Gordon Tooley of Brevard; Secretary-Treasurer, Barbara Hallowell and Field Trip Chairman, Harry Logan. Of these officers, Lincoln Highton and Harry Logan are deceased. Gordon Tooley still lives in Brevard and Barbara Hallowell has remained a member all these years. She and her husband, Tom, live in Pennsylvania.

Botany Bookmarks



<www.ncsparks.net/nhp/search.html>

This is the new N.C. Natural Heritage Program internet access to Rare Species Lists by
County or by Quad.

RECORDER RAMBLINGS THE YEAR 2000Betty Jones

This is the confession of a list maker. I make shopping lists, "to-do" lists, "books-I-have-read" lists, Christmas card lists, luggage packing lists, box content lists, bird lists and, of course, plant lists. At our local library, I maintain a list of the contents of the vertical files and the obituary file. I like order and structure: books with spines all even, piles of paper with edges neatly aligned, sheets without wrinkles, genealogy charts with names all properly linked, bowls that nest properly. I like things to be predictable: trips that are well organized, weather that matches the weather report, birds and plants that show up where I expect them (from my lists). Being the club Recorder suits my personality very well.

So why was I uneasy when I sat down to prepare my annual report? Couldn't I simply run a few statistics from the Trip Reports and consult the plant lists to highlight a few of our special walks?

Two thoughts kept nagging me. First, I remembered a comment that Anne made in her "From the President" column in the summer 2000 issue of *Shortia*. She said, "Make use of the lists to learn common and scientific names but don't become just a 'lister'. If you have to choose between finding and checking off the plant on your list or looking at the plant --- always look." This really hit home and I felt properly chastised.

Second, looking back over the past year, I came to realize that the walks that left an impression on me were not necessarily those with the longest plant lists. It was those where we saw special plants or had pleasant surprises. I think of the fantastic displays of trillium at Pacolet Falls; the wild comfrey and dwarf larkspur at Coleman Boundary (and the great diversity of plants there); at Graybeard, the mass displays of Solomon's plume, Michaux's saxifrage all along the trail, Gray's lily and the large purple fringed orchid; the rare starflower at the Fishback place, the sweet pitcher plant at Kanuga; and even the ragged fringed orchid I discovered at my own place.

That said, I won't stop being a list maker. But I do resolve to focus less on the numbers and more on really looking at the plants and enjoying the moment. No list or number can capture the pleasure of the first sighting of a favorite spring flower or the joy of discovery of a new species. End of confession and sermon.

There are a few numbers that reflect the vitality of our club in the year 2000. Forty-four walks/outings were scheduled; five of them were cancelled. Average attendance at these events was 17.2, more than one person higher than last year. And, finally, our plant lists continue to lengthen as we identify ferns and mosses and include plants that are in fruit or seed.

Thanks to all of you who volunteered to be recorders for our walks. You did an excellent job, in spite of the apprehension expressed by some of you. I hope that you learned by doing. I look forward to receiving more of your reports in 2001.

PEARSON WILDFLOWER PRESERVE

Millie Pearson has realized a long-held dream -- she has protected her forty acres of forested and streamside land in Saluda.

Millie has donated two conservation easements* on her land. One easement includes four acres on the North Pacolet River and four acres on Fork Creek. This total of eight acres was donated to the N.C. Clean Water Management Agency, a state organization with a mandate to protect land along streams and rivers in N.C. The remaining acres are included in an easement Millie donated to the Pacolet Area Conservancy, a private land trust located in Columbus, N.C.

Millie's property has not been altered significantly in the last 100 years. It contains almost 200 species of herbaceous plants some of which are uncommon or rare, fifty species of trees, 2 club mosses, 18 vines, 13 species of ferns and many mosses. The Leatherwood Tree, *Dirca palustris* and the Green Violet, *Hybanthus concolor*, are two special plants found on the property.

Under the terms of the easement, the property now officially known as the Pearson Wildflower Preserve, will remain in its natural state in perpetuity. No logging or earth moving will be allowed. One small house site is reserved along Pearson Falls Road but no other development will ever take place. The terms of the easement pertain not only to Millie as the present owner but to all future owners as well. Millie does plan to grant permission to botany teachers and their students to visit the site to study the native flora.

To the many botany club members who have visited Millie's property in past years, it is good news that her land is now protected.

*A conservation easement is a legal document which prohibits such activities as logging and development on qualified conservation property.

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When I went out
In the spring meadows
To gather violets
I enjoyed myself
So much that I stayed all night.

-Akahito (8th c.)

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RESTORATION PROJECT

Barbara Allen, garden designer and new member of the botany club, is working on a restoration project at her summer home in Toxaway. She writes "We have a unique island in the middle of the road through our neighborhood. The residents were distraught with the way it looks and over a few years have attempted to beautify it with rhododendron, mountain laurel, azaleas, junipers and English ivy. I had a feeling that under all this fluff was a granite outcrop. "

Barbara consulted Elaine Carter, co-author of a small book, Guide to the Plants of Granite Outcrops* and Dr. Larry Ragsdale, head of Environmental Studies at Brevard College. Dr. Ragsdale declared it a disaster and recommended that all the plantings be removed. Much of this has been done. Barbara writes, "It looks a little naked now."

Barbara wants to blend the granite outcrop into a public area. She says her biggest problem may be educating the residents of the value of this outcrop and trying to keep it as natural as possible. She also wants to make it attractive to the people who live there and pass it every day.

She is looking for granite outcrop plants such as:

Bulbostyllis capillaris, Common Hairsedge;

Corydalis sempervirens, Pale Corydalis

Hypericum gentianoides, Orange-grass

Polygala curtissi, Candyroot

Senecio *anonymous*, Small's Ragwort

If any of you have such plants growing on your property and would be willing to share, or if you know of another source, please contact Barbara at 5 River Court Parkway, Atlanta, Ga.30328 or send her an e-mail at <jandballen@mindspring.com>. Barbara has issued an invitation to all our members to visit the restoration project.

**Guide to Plants of Granite Outcrops by William H. Murdy and Elaine Brown Carter. Published by the University of Georgia Press, \$15.95 hardcover.*

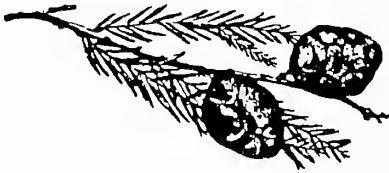


A New Species

Found so far in only four sites in the world, Coastal Goldenrod, *Solidago villosicarpa*, has recently been declared a new species. The four sites are all within about one mile of the coast or near tidal creeks in North Carolina. Coastal Goldenrod is a showy plant that grows in pine and hardwood forests usually in canopy openings. It can reach 5 feet in height and has numerous flowers nearly an inch wide. Because it seems to thrive in canopy openings, it is thought it may be a species that has adapted to hurricanes.

The Bald Cypress (*Taxodium distichum*) is the universal symbol of the southern swamp. It grows slowly in its watery habitat and can do so for a thousand years or more. Its unique feathery leaves turn a coppery bronze in autumn before falling to the ground, for this conifer is deciduous even to its small twiglets. In the early spring staminate catkins appear and later the small round pistillate flowers develop into spherical brown cones nearly the size of golf balls. The hollow "knees" or pneumatophores of the trees are aerial extensions of the root system and serve several purposes, one being the stabilization of the trees in severe wind storms.

These are low-elevation trees intolerant of the cold because of specific reproductive requirements. Their seeds must have constant moisture to germinate; the seedlings must have constant access to surface water; and the saplings must have seasonal flooding to kill the hardwood competition that would outgrow them.



Guy Sternberg and Jim Wilson, who wrote the article from which I have drawn this information write: "The Bald Cypress is invariably the largest and tallest tree in the old swamp forests of the South and so it attracts everything that likes high places over water -- eagles, ospreys, anhingas, cormorants, herons and lightning. "

In the same article they report on the wonders of a canoe trip in the heart of Okefenokee National Wildlife Refuge in Georgia. They write " ...the birds, alligators and the canivorous plants were marvelous. But the most lasting impression is of a black night spent in total solitude, camping among islands of beautiful bald cypress trees that were draped with ghost-like moss and alive with tree frogs. "

The authors list the Francis Beidler Refuge in South Carolina as one of the most convenient places to admire these ancient trees. The Club has scheduled a trip there on April 28 and 29th. We will experience the swamp at night with a walk on the 6500 foot boardwalk beginning at 7:30 p.m. The next morning we will have a wildflower walk led by a guide from the Beidler staff. For those who are interested, a 2 or 4 hour canoe trip into the swamp is possible but must be reserved separately. Our trip is limited to 20 with registration closed on April 1. Call Anne Ulinski for information and registration.

Excerpted with permission from an article by Guy Sternberg and Jim Wilson which appeared in *Wildflower*, *North America's Magazine of Wild Flora*. Sternberg and Wilson are co-authors of *Landscaping with Native Trees* which will be published in an expanded edition by year end.

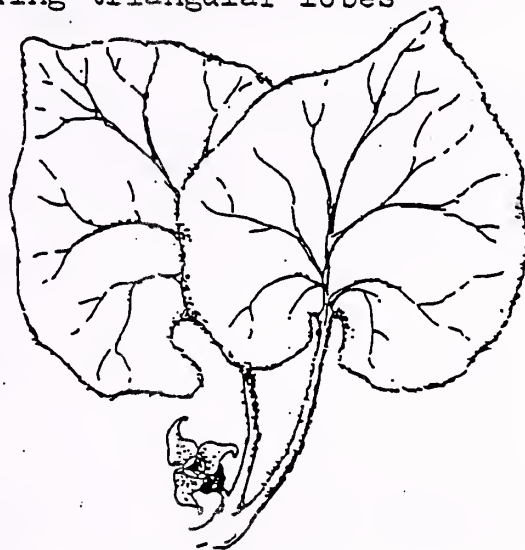
LOOK AGAIN !

Although not even distantly related to the true ginger of the tropics, the roots of our Wild Ginger, Asarum canadense, have a surprisingly similar flavor and tang.

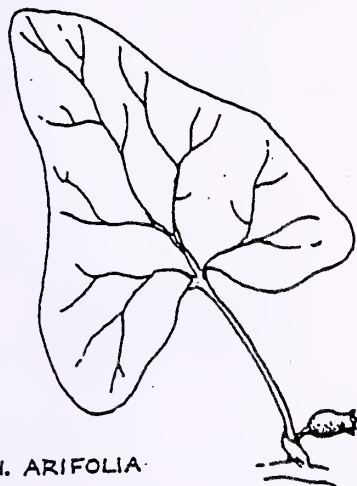
Each spring this plant puts out a pair of large downy leaves, and a solitary reddish or purplish brown flower near ground level. The flower is actually a fleshy calyx (there are no petals), bell-shaped with three spreading triangular lobes which may vary greatly in length.

Another group of plants popularly known as Wild Ginger but endemic to the Southeast possesses a different set of characters; some authors have placed these in the genus Hexastylis and have given them the alternative common name of Heartleaf. They have smooth evergreen foliage (sometimes variegated), a single leaf being formed each year to join the persistent older ones.

The earliest of these to bloom is H. arifolia, in which the leaves are triangular. The little flowers, which are greenish brown and flask-shaped, have given it the colloquial name of Little Brown Jugs.



A. CANADENSE



H. ARIFOLIA

This is followed in our area by three species with more rounded leaves and larger flowers that vary from cylindric to urn-shaped. The calyx lobes are very short in H. virginica, longer in H. heterophylla. H. shuttleworthii is made conspicuous by its big flowers, which usually exceed an inch in length.

Dick Smith

SHORTIA

Vol. XX111. No. 1

Spring 2001

A quarterly publication of the Western Carolina Botanical Club

Editor: Anne Ulinski

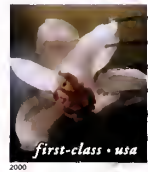
Editorial Assisting and Art Work: Pat Arnett

Please submit contributions for the next issue by May 15, 2001 to: Anne Ulinski
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are \$12. New members joining from the period July 1-December 31, pay \$6. All memberships are renewable on January first of each year. Please send dues to: _____

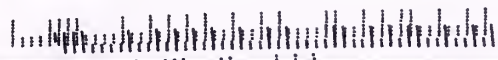
Rachel Conway, Treasurer
211 Aldersgate Circle
Asheville, N.C. 28803

SHORTIA
c/o Anne Ulinski
1212 Chanteloupe Drive
Hendersonville, N.C. 28739



FIRST CLASS

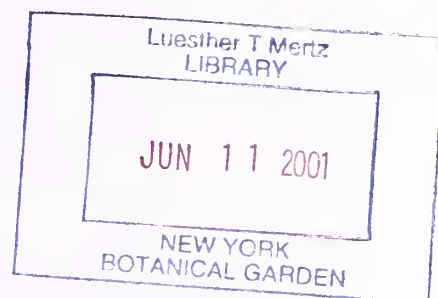
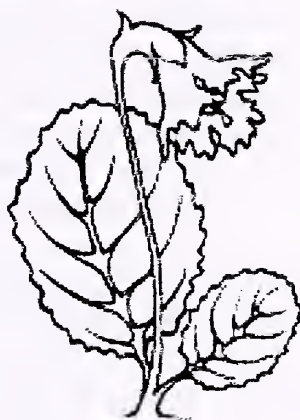
Library *Att: Dr. Buck
New York Botanical Garden
Bronx, N.Y. 10458-5126



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SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB
SUMMER 2001



Shortia galacifolia

Oconee Bells

WESTERN CAROLINA BOTANICAL CLUB - 2001

President: Bonnie Arbuckle
Vice President: Helen Smith
Secretary: Peggy Ellis

Treasurer: Rachel Conway
Recorder: Betty Jones
Historian: Dana Herrman

From the President..... Bonnie Arbuckle

As we returned from the South Carolina Native Plant Symposium 2001 the car was filled with conversation. Questions were endless. Wasn't Wilma Dykeman a dynamic speaker? What seminar did you attend? What is a coal ball, and how do you peel it? How did Forty Acre Rock Preserve differ from Peach Tree Rock Preserve? What makes a Carolina Bay? One comment was heard over and over; I learned so much because everyone was so willing and eager to share.

My favorite session was the one on native ferns presented by Tom Goforth. Tom, a teacher, introduced himself and said that since he had become interested in ferns he had decided to learn everything he could about them. He has studied their habitat, classification, structure and methods of propagation. He explained their life cycle and showed the different stages in the propagation process. He sifted spores through a fine mesh screen and gave each participant some to take home. If I am successful in propagating them, it will make a good learn and share program. We examined a fruiting frond under a hand lens and talked of the way to identify different genus and species. Tom also gave each participant a Dryopteris and an Anthyrium plant that he had propagated from spores. He truly shared his knowledge and encouraged us to be aware of ferns in our surroundings. Since this class I have looked at each fern more closely and tried to identify it. It is still a challenge.

The learning and sharing from this experience helped me realize that plant people in general and especially those in Western Carolina Botanical Club like to share their plant knowledge with others. As individuals we share on our weekly outings. As a club we conducted a plant survey at the Cradle of Forestry so that a brochure could be made to help visitors identify the plants growing along the trails. We have volunteered to survey the plants along the nature trail at Bullington Center so that students can learn about the native plants in that area. We still need volunteers to participate in this project. Please contact Bonnie if you can help one day per month.

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Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.

Martha Adams: 305 Wagram Place, Hendersonville 28739. 689-268. Martha and her husband Robert moved here four years ago from Conn. She enjoys gardening and is a published poet.

Sarah Schade: 274 Hutch Mt. Road, Fletcher, NC 28732. 687-1024. Sarah's love of nature and desire to learn of native plants brought her to the WCBC. She finds gardening in a wooded area in Fletcher quite different from her former home in Memphis, TN.

Susan Stone: 52 Edwin Place, Asheville, NC 28801. 828-236-1828. Susan learned of the WCBC when she met Helen Smith at the NC Arboretum. Both were attending a nature journalizing class. A native of NC, Susan is interested in wild flowers.

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Change of Address and Telephone Number:

Peggy and Craig Ellis, 343 Lower Loop Drive, Fletcher, 28732. 651-9335

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The Cumberland Falls State Resort Park in Corbin, Kentucky lies on the Cumberland Plateau, an area which is mainly sandstone with an acidic soil. In the Park itself there is found a sandstone called Rockcastle Conglomerate which is harder than most sandstones. The area has many natural arches, unusual looking rock formations, waterfalls and orchids, trilliums and a host of other plant life. The park is about a 4 hour drive from Hendersonville.

The Club is offering a three day trip to the Park on April 29 and April 30, 2002. The Park offers a special rate for groups of 20 people. This includes two nights in the historic Dupont Lodge and 6 meals all for \$117 per person double occupancy or \$138.50 for a single. However, to qualify we need 20 members who are willing to send a registration fee of \$25 to reserve a place. We have 8 registered, so 12 more to go! If we don't make the 20, all reservation fees will be returned.

This is an opportunity to see a very unusual ecosystem, stay at a resort park and enjoy the company of other Club members and at a very reasonable rate. So send your \$25 check to Jan Fishback, 516 Panther Bridge Road, Canton 28716. Make your check payable to the Western Carolina Botanical Club. Accommodations in state parks are in great demand, so we need your reservation fee as soon as possible.



Eagle Falls

-Pat Arnett

Impressions and Reflections

Nineteen members of the Botanical Club spent several days at the Francis Beidler National Audubon Sanctuary canoeing deep into the swamp, walking the 6500 foot boardwalk through the old growth swamp woods and exploring with a guide some of the open pine woods which surround the swamp. After the trip members shared their thoughts.

day....

the brilliant white of the Atamasco Lily, *Zephyranthes atamasca*, in the swamp woods
the brilliant white of the Tread softly or Stinging Nettle, *Cnidoscolus*
stimulosus, in the pine woods and the white ibisis at the Lake

dusk...

sitting together around the 1000 year old Bald Cypress as the day creatures
of the swamp became quiet and the night creatures began to stir

dark...

the splash of an alligator at the Lake, a possum foraging on the far shore, the red reflection of spider eyes and the far-off cry of the barred owl

very dark ...

walking two by two the last half mile of the boardwalk with only an occasional glimpse
of a quarter moon reflected on the water

canoeing...

going back in time ... absorbed by nature...a place untouched by man

and... the yellow-crowned night heron along the boardwalk.. a stop at the science table in the Visitor's Center to pick up a cypress knee and wonder at its lightness, and the huge cones of the Longleaf Pine, *Pinus palustris*.

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The North Carolina Department of Transportation (NCDOT) has created the Monarch Butterfly Program to restore Common Milkweed, *Asclepias syriaca*, into established roadside wildlife habitat plots. The department's Roadside Environmental Unit has already planted 40 acres of milkweed in 25 counties.

As the monarchs migrate from Canada to Mexico, some of the butterflies come through North Carolina. The milkweed necessary for the monarch's long journey has been disappearing because of changes in land use. Milkweed is the plant of choice for monarchs who lay their eggs near or on milkweed plants so the larvae from these eggs will feed on the leaves.

In the early fall, look for these plots as you travel through our state and you may see the beautiful bright orange and black monarch butterflies.



Our 2001 season got off to a non-**Hardy Souls** start with a pleasant walk along **Butter Gap Trail** near the Fish Hatchery. The only blooming plant noted was Witch Hazel, but it was possible to identify four lycopodiums, two berries and several other green plants by their leaves or fruits.

What should have been called our Hardy Souls walk was the March 23 walk on the **Bradley Creek Trail**. A few days before, 10-16 inches of snow fell, making the trail wet and treacherous. Most plants were identified by their leaves, but Trailing Arbutus (*Epigaea repens*), Solitary Pussytoes (*Antennaria solitaria*) and two violets were in bloom.

High water in Carrick Creek at **Table Rock State Park** prevented our making the usual loop walk, so backtracking was required. Spring started late this year, so we did not see as many blooming plants as we did on last year's walk. Notably absent was the Pinxter Flower (*Rhododendron periclymenoides*) which was a highlight last year.

The **Corneille Bryan Nature Center** (Maxilla's Garden) demonstrates what can be done with a piece of "waste" land in an urban setting. This entire hillside has been transformed into a wildflower "learning center". Most plants have been introduced.

The day was hot, but spring flowers were in abundance on the **Green River/Cove Creek** walk. Flowers were blooming here as much as three weeks earlier than in our higher elevation areas. Thirty-nine blooming plants were identified.

A red Buckeye dominated the trail at **Glassy Mt. Preserve** in SC. Fringe Trees (*Chionanthus virginicus*) were at their peak along the trail and Blue Star (*Amsonia tabernaemontanum*) decorated our lunch site. Elf Orpine (*Sedum smallii*) and Mountain Sandwort (*Minuartia groenlandica*) maintain a precarious existence on the bare rocks. We compared the Woolly Lip Fern (*Chielanthes tomentosa*) and the Hairy Lip Fern (*C. Lanosa*).

Trillium were once again abundant and spectacular at **Pacolet Falls**. We admired the "double" Dogwood, Pinxter Flower (*Rhododendron periclymenoides*) and Pinkshell Azalea (*R. vaseyi*) at the **Botanical Garden at Asheville**. The big "find" of the day was a blooming Whorled Pogonia (*Isotria verticillata*).

Nineteen members participated in the **Beidler Forest/Four Holes Swamp** trip to SC. The following Monday, 14 members enjoyed a leisurely stroll along the **Davidson River** to **Sycamore Flats**. The Cream Violet (*Viola striata*) and Foamflower (*Tiarella cordifolia*) were abundant; and we even found the elusive Pennywort (*Obolaria virginica*).

Coleman Boundary lived up to its reputation for variety and abundance of wildflowers. Our May checklist for this site now contains 150 species.

It gave me great pleasure to welcome the club to our mountain cove (called the **Jones Farm** on the schedules). We hit the Vasey's Trillium (*Trillium vaseyi*) and Showy Orchis (*Galearis spectabilis*) at their peak and the tiny Appalachian Twayblade were in bud.

Habitats included a weedy roadside, sphagnum bog, sunny meadow, creekside trail and rich mountain cove.

AWARD



Indian Grass
(*Sorghastrum
nutans*)

Gary Kauffman was recently honored as one of an elite group of three botanists for his work in "species conservation, community restoration, partnership and plant materials development". The award was announced at the U.S. Forest Service's American Wildlife and Natural Resources Conference in March of this year.

Gary is a botanist with the Nantahala District of the U.S. Forest Service. The award recognizes his leadership in a project to collect and develop a native seed mixture. The mix would be targeted for disturbed areas as well as those locations designated for exotic species eradication. One of the goals is the development of fast growing seed mixtures which can be produced economically for both the government and the private sectors.

Another goal is to collect seeds from numerous populations of each individual species to ensure a rich diversity of genetic material. Reestablished plants should be genetically related to nearby populations in order to ensure the long term success of the establishment.

Seed collection was completed in 12 contiguous mountain counties. Potential native species selection criteria included: 1) cool and warm season grasses; 2) forbs* with showy flowers; 3) plants with the ability to persist and compete in a frequently disturbed habitat; 4) plants abundant across the range studied with dispersed individual populations; 5) plants successfully grown in the horticultural trade; 6) plants with congener species occupying similar habitat in other parts of the United States and known to be effective in establishment on disturbed roadside sites in their natural range and 7) plants with seeds that mature more or less simultaneously and are shatter resistant.

Most of Gary's activities occurred during after duty hours.

Gary reports that grasses which look promising are Little Blue Stem, Indian Grass, Red Top or Greasy Grass, Plume Grass, Virginia Wild Rye and Bottlebrush. Wildflowers that show potential include Hairy Coreopsis, Tri-lobed Black-eyed Susan, Wild Quinine, Appalachian Beardtongue, Wavy-leaved Aster and Grass-leaved Golden Aster.

One of the targets for reseeding is the Blue Ridge Parkway. Hopefully in the future we can drive the Parkway and see a restoration of native grasses.

*A forb is a broad-leaved flowering plant as distinguished from grasses, sedges, etc.

Gary Kauffman will be our leader on a guided tour of a serpentine barrens located near Franklin N.C. Watch for this September field trip in the next Club Schedule

THOSE LATIN NAMES Betty Jones

Have you ever noticed how often we ascribe human or animal features to inanimate things, like the "mouth" of a river or the "head" and the "foot" of the stairs? The people who gave names to plants, noting the similarity between a part of a plant and some animal structure, did the same thing and incorporated the structure into the plant name. I started this article thinking I could cover the body from head to foot, but found that so many body parts were used that I had to limit this piece to structures above the neck. Examples:

Cephalo- (Greek) refers to the head. Consider *Helianthus microcephalus* or Small Wood Sunflower. *Micro* (small) and *cephalus* (head) refer to the relatively smaller head of this *Heli* (sun) *anthus* (flower).

Crist- (Latin) means crest. Thus we have *Iris cristata* (Crested Dwarf Iris), *Platanthera cristata* (Crested Fringed Orchid) and *Cladonia cristatella* (British Soldiers) whose other common name is Red Crest Lichen.

Coron- (L) is crown. We see this root in English words: "Coronation" and "coroner" which literally means "officer of the crown". In plants we have *Coronilla varia* (Crown Vetch) whose flower heads resemble fancy pink crowns.

Auri- (L) refers to ears. On our walks we find *Coreopsis auriculata* (Eared Coreopsis) which have a pair of earlike lobes at the base of the leaf blade.

Corn- (L) means horn. The genus name for Dogwood (*Cornus*) comes from this root. An English botanist John Parkinson said, "The wood ... is very hard, like unto horne, and thereof it obtained the name." The beautiful *Delphinium tricornes* (Dwarf Larkspur) takes its name from the horn-like extension of the upper petal. In *Corylus cornuta* (Beaked Hazelnut), *corn* refers to the horn-like projection on the nut.

Capill- (L), **Crini-** (L), **Pil-** (L) and **Tricho-** (G) all refer to hair. These roots give us *Crepis capillaris* (Smooth Hawk's Beard), *Adiantum capillus-veneris* (Southern Maidenhair), *Gentianopsis crinita* (Fringed Gentian), *Hieracium pilosella* (Mouse-ear Hawkweed), *Aster pilosus* (White Heath Aster), *Galium pilosum* (Hairy Bedstraw), *Polytrichum commune* (Haircap Moss) and the genus *Trichostema* (Blue Curls) which have hairy stamens.

Denti- (L) and **Odonto-** (G) mean teeth. The botanical name for the Toothworts used to be *Dentaria* but has been changed to *Cardamine*. We still have *Sibbaldiopsis tridentata* (Wine-leaved Cinquefoil) which have 3 teeth at the apex of the leaflets. From the Greek we get *Corallorhiza odontorhiza* (Late Coralroot) whose name literally means "coral-like rhizomes, toothlike rhizomes (or roots)".

Rostr- (L) is beak. The *Viola rostrata* (Long-spurred Violet) might easily have been called Long-beaked Violet for the long backward-extending petal that resembles a spur or beak.

Blepharo- (G) refers to eyelashes. Hence, the root is used in names for plants which have fringed edges on the petals. *Platanthera blephariglottis* (Large White Fringed Orchid) is a good example. The **glottis-** (G) in that name means tongue; the lower petal of the flower does indeed resemble a tongue with lashes.

The South Carolina Native Plant Society Symposium

Five members of the Botany Club attended the S.C. Native Plant Society Symposium which was held at the Riverbanks Zoo in Columbia, S.C. the first weekend in April. Saturday was devoted to classes and lectures and Sunday to field trips. Four of the field trips are summarized below by Anne Ulinski and Jeanne Smith.

Forty Acre Rock Heritage Preserve.

This gigantic granite rock lies in Lancaster County, S.C. where the Sandhills meet the Piedmont. The entire Forty Acre Rock Preserve encompasses 1567 acres composed mostly of intermittent exposed rock and thin soil. It has been designated a National Natural Landmark.

Four Botany Club members joined other participants to visit this unusual site on a field trip led by Richard Porcher, Professor of Biology at The Citadel. Mosses and lichens thrive here and a few Eastern Red Cedars, *Juniperus virginiana*, rise from the shallow soils over a granite floor. We saw the rare sandwort, *Minuartia uniflora*, and the Appalachian Sandwort, *Minuartia glabra*, both in bloom.

But we were searching for an even rarer species, *Amphiantus pusillus*. This tiny plant is listed as rare in S.C. and globally threatened. A call from one of the leaders led us to a small vernal pool where we used our hands lenses to take a long and close look at this outcrop endemic. We saw a tiny plant with two floating opposite leaves on each stem, leaves which surrounded a solitary white flower. A common name for this plant is Pool Sprite.

Diamorpha smallii, Elf orpine, and *Sedum pusillum*, Puck's orpine, were two other rock plants at this site.

Savage Bay Heritage Preserve

Savage Bay with its 69 protected acres is an example of the Carolina Bay phenomenon. These bays are elliptical basins found throughout the Atlantic Coastal Plain, but mostly within North and South Carolina. They are actually wetlands which support abundant wildlife and several rare, threatened and endangered plants and animals.



Lyonia lucida
Shining Fetterbush

Savage Bay is located in the Fall Line Sandhills region. About half of the site is Carolina bay habitat with most of the remaining old agricultural fields. Longleaf pine, *Pinus palustris* and broom sedge, *Andropogon virginicus*, are the dominant vegetation. An imposing canopy tree is Pond Cypress, *Taxodium ascendens*.

We visited the larger of the two bays at the Preserve which was unusually dry so we were free to wander around without wading through water. We had to push through some dense brush to reach the center of the bay. Some of the plants we saw in the bay itself or walking to reach the site were: Red root, *Lachanthes caroliniana*, Pink Sandhill Lupine, *Lupinus villosus*, Shining Fetterbush, *Lyonia lucida*, and Chickasaw Plum, *Prunus angustifolium*.

-Anne Ulinski

Symposium Field Trips (continued)

Shealy's Pond Heritage Preserve.

This Preserve is a 62-acre tract with an old mill pond surrounded by an Atlantic White Cedar bog that supports several rare plant species: Rayner's blueberry, Sundews and Pitcher Plants. A glorious display of Golden Club, *Orontium Aquaticum*, covered almost the entire surface of the pond.

We were too early on April 8 for the carnivorous plants to be in bloom. Our leader, Gill Newberry, stated that May 5 is the date for the best blooming period. We saw only one *Saracenia flava* in bloom after bushwacking through the cedars not being able to avoid stepping on the spagnum moss nurseries of tiny sundews and just emerging pitcher plants.

Until the Preserve can afford a boardwalk or a least a designated trail, I would not recommend any group visiting this site for the sake of the plants.

Golden Club
*Orontium Aquaticum**



Peachtree Rock Preserve.

This preserve encompasses 305 acres of diverse ecosystems. The area harbors the largest sandstone outcrops rich in marine fossils found in South Carolina.

Of the various plant communities within the Preserve, the sandhill scrub vegetation held the most interest for this mountain resident. A hillside of white sand myrtle, *Leiophyllum buxifolium*, at it peak made an impressive botanical display. It was quite an experience to walk through this pine/oak woods and realize the sandy soil underfoot represented the ocean shoreline of eons ago. Special sand plants in evidence were: Carolina Epecac, *Euphorbia ipecacuanhae*, Fetterbush, *Lyonia mariana*, Hairy Lipfern, *Cheilanthes lanosa*, Spike Moss, *Selaginella sp.*, Rosemary Shrub, *Ceratiola ericoices*, Sandwort, *Arenaria carolinianum*, Resurrection Fern, *Polypodium polypoides* and a unique woody Goldenrod, *Solidago pauciflosculosa*.

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The South Carolina Native Plant Society is to be congratulated. This symposium was well organized, the leaders were knowledgeable, the programs varied and the zoo site unique as well as eye-appealing with its gorgeous plantings. Just the place for botanists to meet. Let's plan to go again next year.

-Jeanne Smith

**Line drawing by Richard. M. Smith from his book "Wild Plants in America"*

SHORTIA

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Editor: Anne Ulinski

Editorial Assisting and Art Work: Pat Arnett

Please submit contributions for the next issue by August 15, 2001 to: Anne Ulinski
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

The purpose of the Club is to study the plants of the Southern Appalachian Mountains and the Southeast through field trips and indoor meetings. Membership is open to all. Individual/family memberships are \$12. New members joining from the period July 1-December 31, pay \$6. All memberships are renewable on January first of each year. Please send dues to:

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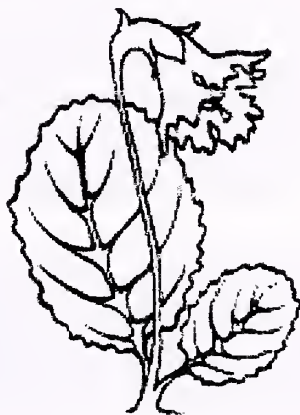


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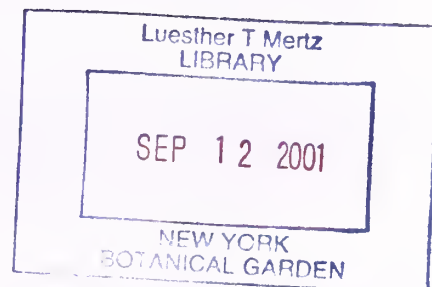
NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB

Autumn 2001



Shortia galacifolia

Oconee Bells



WESTERN CAROLINA BOTANICAL CLUB - 2001

President: Bonnie Arbuckle
Vice President: Helen Smith
Secretary: Peggy Ellis

Treasurer: Rachel Conway
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FROM THE PRESIDENT..... Bonnie Arbuckle

Bartram Botanists

When we think of early American botanists the names of John and William Bartram come to mind. John is known as a plant collector and cultivator of one of the first botanical gardens in this country. When he and his son William made a plant survey of the area known as Florida in 1765 they discovered "*severall very curious shrubs*" in what is now coastal Georgia. Later William named one for his father's friend Benjamin Franklin. Today *Franklinia altamaha* is no longer found in the wild, all plants in gardens were grown from seed collected and propagated by the Bartrams.

William Bartram, called Billy, is remembered for his extensive travels in the southeastern United States. Dr John Fothergill was an admirer of Billy's art work and agreed to sponsor him on the plant collecting expedition that lasted four years. Accounts of his travels with flowery descriptions of the plants, animals and people of the area were published in his book The Travels of William Bartram. He spent his later years at the Bartram's Philadelphia home sharing his knowledge with traveling naturalists and his niece Ann.

Information about two influential Bartram women was recently collected and published in Bartram Broadside, the newsletter of Historic Bartram's Garden. Ann Mendenhall Bartram was the second wife of John Bartram. Shortly after their marriage they moved to his farm on the Schuylkill River, now known as Historic Bartram's Garden. Here she raised a family, she gave birth to nine children, and assumed the duties of an 18th century Pennsylvania housewife---sewing, spinning, dairying, preserving food and gardening. As the wife of America's foremost botanist she also supervised the farm when he was away and helped with business correspondence. In 1763 Peter Collinson wrote "*I am much obliged to thy good wife, for her kind Letter in thy Absence.*" Ann must have been a sturdy woman, she outlived her husband and assisted with the rearing of her grandchildren after their mother's death.

(continued on P.5)

Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.

New Members.....Lois McDaniel

Walker Harris: 138 Sassafras Ct., Highlands, N.C. 28741, 526-3692. Walker lives six months in Highlands and six months in Columbus, Ga. He is interested in wildflowers and hopes to soon join us on hikes in the fall after his recuperation from recent knee surgery.

James and Barbara Holmes: 75 Farwood Court, Flat Rock 28731, 698-9517. James and Barbara moved here a year ago from New Jersey where James was active in the Native Plant Society. Here he is a member of the Iris, Azalea, and Rhododendron Societies.

Mary L. Merkle: 180 Tranquillity Place, Hendersonville 28739, 692-9248 Mary, a former member, became interested once again through Ruth Hoerich. Mary is a former teacher from Michigan.

Poole, Kay & Edwin, 186 Cullasja Dr. Highlands, 28741, 526-2775.

Address Changes/Corrections

Ray Colmont and Lucie Strayer. Summer address: 18 Gagama Court, Conneestee Falls, Brevard, N.C. 28712. Tel. 877-4551

Peggy Polchow. Hendersonville address: Route 20 Box 280, Hendersonville, N.C. 28739

Larry and Anita Avery. Telephone. 692-2679

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UPCOMING TRIPS

Rock Creek Serpentine Barrens. Thursday, September 27 - Friday September 28

This is a guided tour to a very unusual ecosystem located near Franklin, N.C. We will have a guide -- Gary Kauffman, Botanist with the U.S. Forest Service. Gary's knowledge of serpentine habitats will make this an especially interesting botanical field trip.

We will stay overnight in Franklin on Thursday, September 27. Thursday evening Gary will present a slide program on the rare plants of North Carolina and will brief us on what we will be seeing on Friday at the Barrens.

Reservations for Thursday night should be made at the Hampton Inn, Franklin, N.C. Telephone: 828-360-0600. Please let Anne Ulinski know if you plan to make this trip. (Tel: 697-9527, e-mail <anne@ioa.com>). If you are interested in carpooling, contact Helen Smith, 883-4946 for those living around Brevard, and Anne Ulinski for those near Hendersonville.

Cumberland Falls State Resort Park, Corbin, Ky. April 28, 29 2002. Registration is now closed for this trip with twenty-four members registered. Jan Fishback is maintaining a waiting list. Contact Jan (648-7842, e-mail <fishback@haywood.main.nc.us>) for more information.

Do you remember that before the invention of radio, ships that passed in the night communicated with each other by using a bright light and the Morse Code of dots and dashes? Fireflies were doing that a million years ago!

....Fireflies were all around me as I lay in my hammock until well after dark. Of course, they really aren't flies at all. They are beetles and there is no "fire" either. It is what is called "cool light" and only recently have scientists begun to understand this mysterious glow.

The lights we see are all males looking for (what else?) mates. The females sit patiently in the grass waiting for lovers. There may be three or four different kinds of fireflies above but a female must mate with one of her own species.

Fireflies can make no sound, so how do they communicate? She "reads" the length of his glow and/or the length of the interval between glows. If she gets the right signal, she turns on her own little glow pot saying "C'mon down and see me." Her carefully timed message lures him to her side.



The Common Eastern Firefly
Photinus pyralis

And this explains why fireflies go around flashing their lights.

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Book Review.....Ruth Anne Gibson

Ready for a mystery? What about a story set in nearby northwestern North Carolina that includes a contest identifying wildflowers? Read Incident at Roan High Bluff by William Rowan, a mystery of international intrigue.

This book weaves a tale that takes place in twelve square miles of wilderness in the Roan Mountain area along the North Carolina-Tennessee border. The towns of Buladean and Bakersville figure in the adventure.

The Southern Comfort tour composed of three buses are scheduled for a stop at Carvers Gap on Roan Mountain to view the rhododendrons and participate in the wildflower contest. Later as the three tour buses leave Roan Mountain there is confusion about which bus some have boarded. The next stop at Grove Park Inn in Asheville reveals that five are not on any bus. The tale continues of how four tourists survive five days in the wilderness. But where is the fifth tourist?

Botany Club members, can you guess what plants the four members find to aid in their survival? Or can you guess why the lost tourists spend their days hiking through rough terrain always at the same elevation? Check out this book from either the Henderson County or Transylvania County libraries to learn more about the lost group and what happened to tourist number five.



After an extended period of dry weather, rain finally arrived in mid-May and resulted in the cancellation of four consecutive walks, one being the very popular Blue Ridge Parkway South walk.

The recorder for the **Tanbark Tunnel** walk commented on the impressive display of Wild Geranium (*Geranium maculatum*) all along the trail. Also noted were the Shooting Stars (*Dodecatheon meadia*) and the Whorled Pogonia (*Isotria verticillata*). Seventy-nine plants were identified including 11 species of ferns.

The timing of the **Pilot Mountain** walk (May 14) was perfect as the Pinkshell Azaleas (*Rhododendron vaseyi*) were at their peak. At trail-side were Painted Trillium (*Trillium undulatum*) and the dainty Rose Twisted Stalk (*Streptopus roseus*). The panoramic views at the mountain top were well worth the twisting climb.

Rain caused cancellation of the **Ashmore Heritage Preserve** walk but the scouting report convinces me that we should reschedule this walk for next year. Observed were Grass Pink (*Calopogon tuberosus*), Sweet Pitcher Plant (*Sarracenia jonesii*) and, probably, Horned Bladderwort (*Utricularia cornuta*) near the pond.

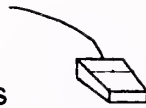
By the time of the mid-June walk at **Tanbark Tunnel**, the Wild Geranium, Shooting Stars and Whorled Pogonia had faded and Goatsbeard (*Aruncus dioicus*), Galax (*Galax aphylla*) and Small's Penstemon (*Penstemon smallii*) were abundant. On a rock outcrop was a large patch of Prickly Pear (*Opuntia humifusa*) in bloom.

The sun was shining as we began our walk from Black Balsam to **Flat Laurel Creek**. Botanizing was good – we identified 72 plants – as we passed Hawkweeds, Bluets, Twayblades, Lesser Stitchwort (*Stellaria graminea*), Michaux's Saxifrage (*Saxifraga michauxii*), Wood Strawberry (*Fragaria vesca* ssp. *americana*) and the large patches of (planted) *Monarda* and *Penstemon*. We lunched at Flat Laurel Creek and had barely finished when the rains came. It was a soggy 15 walkers who slogged up the trail and back to the cars.

The walk at **Bee Tree Gap** finished out the schedule for the first half of the year. We were about a week early for the Turk's Cap Lily (*Lilium superbum*), but the Purple Bluets (*Houstonia purpurea*), Gray Beardtongue (*Penstemon canescens*) and Fire Pink (*Silene virginica*) were at their peak. Several Columbine (*Aquilegia canadensis*) were still in bloom. On the slope across the road from our parking area was the shrubby Glaucous Honeysuckle (*Lonicera dioica*) – seldom seen on our walks.

There were clouds but no rain as we walked a comfortable loop at **Graveyard Fields**. Galax (*Galax aphylla*) had already passed its prime and the abundant Shrubby St. John's-wort (*Hypericum spathulatum*) had barely begun to bloom. Grass-of-Parnassus (*Parnassia asarifolia*) and the Kidney-leaved Twayblade (*Listera smallii*) were found tucked down among other trail-side plants.

A repeat visit to **Bee Tree Gap** on July 20 was interrupted by rain. Highlights of the walk were Tall Bellflower (*Campanula americana*), Bee Balm (*Monarda didyma*), Carolina Phlox (*Phlox carolina*) and Fire Pink (*Silene virginica*). Eighty-five species were identified.



NatureServe is a new online "encyclopedia of life" developed by the Association of Biodiversity Information. It is now available at www.natureserve.org

NatureServe provides authoritative conservation information in a searchable database for more than 50,000 plants, animals and ecological communities. Maps show where each species and ecological community occurs and how rare or common it is across its range. The site describes species' life histories and habitat requirements.

In identifying endangered and protected species, descriptions are of species' life histories and habitat requirements, the threats they face and management strategies for their protection.

Vascular plants, vertebrates, invertebrates, non-vascular plants, more than 4500 ecological communities and a selection of established non-native plants and animals are included in the encyclopedia.

The Association for Biodiversity Information (ABI) is a non-profit organization dedicated to developing and providing knowledge about the world's natural diversity. For more information go to www.abi.org . Alan Weakley serves as Chief Ecologist for ABI and Rickie White as Regional Vegetation Ecologist. (For more information about Alan Weakley and Rickie White see p. 8).

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Bartram Botanists (continued from p. 1)

Granddaughter Ann Bartram Carr lived most of her life on the Bartram farm. As a young girl she learned household chores and she studied drawing and botany with her Uncle Billy. A traveler recorded "*we then turned to talking about botany, a field to which she was no stranger, for she knew the names of many plants and could apply the system of Linnaeus*". At fifteen she assumed the duties of housekeeper for her widowed father. After her marriage she and her husband managed the botanic garden and revitalized the commercial nursery. Her husband was a printer by trade and it is acknowledged that Ann was the botanist and manager of the nursery business.

After Ann's death this obituary appeared in the Gardener's Monthly: "We regret to announce the death of Mrs. Ann Bartram Carr, the last of the distinguished Bartram botanists. Mrs. Carr inherited the fondness for Botany and Gardening for which her forefathers are so famous. So closely allied are these names with the history of American Botany and Horticulture, that a memoir of the lady will be read with much interest by our readers." We would know more about this remarkable woman if the memoir had been published.

Let's continue our look at body parts that appear in the Latin names of plants. In the Summer 2001 issue of *Shortia*, we started with structures that appear on the head. Now we will consider the rest of the body, in particular, features on the exterior of the body.

Brachi- (Greek) means arm. This root appears in *Sabatia brachiata* (Narrowleaf Rose-pink), probably referring to the branches or 'arms' coming off the main stem. This root should not be confused with *brachy* which is Greek for 'short'.

Ala- (L) and **Ptero-** (G) refer to wings. In *Lythrum alatum* (Winged Loosestrife), the reference is to the wing-like structures on the stem. The wing-like shape of the fronds gives *Pteridium aquilinum* (Bracken) its name.

Gonato- (G) is knee. *Polygonatum* or 'many knees' is the genus name for Solomon's Seal whose roots have many joints or 'knees'.

Digiti- (L) refers, of course, to digits or fingers. One thinks first of *Digitalis* (Foxglove) which was so-named for the finger-shape of its flower. In the wild we have *Penstemon digitalis* (Foxglove Beardtongue) whose flowers have the same finger shape as Foxglove. In *100 Flowers and How They Got Their Names*, author Diana Wells says that "Foxgloves tend to grow on woody slopes where foxes' burrows are often found." Combine this with the glove or finger shape of the flower and you have Foxglove.

-seta (L) refers to bristles. This root occurs in our plant lists in *Polygonum cespitosum* var. *longisetum* or Long-bristled Smartweed. Those long bristles (1/4 to 3/8 inches long) appear at the sheath that surrounds the stem at each of the swollen leaf joints.

Spini- (L) are spines - the thorny, not the bony kind. The *Sida spinosa* (Prickly Mallow) has a short spine at the base of each petiole. If you are familiar with *Aralia spinosa* (Devil's Walking Stick), you recognize that it is aptly named.

-lepis (G) refers to scales. We find this root in *Bidens polylepis* whose name literally means "two-teeth, many scales". "Two-teeth" refers to the two barbs that catch on ones clothing as one walks by. I have been unable to find the reason for "many scales". This plant has several common names: Bur Marigold, (Ozark)Tickseed Sunflower and, my favorite, the name used by Dick Smith - Ditch Daisy.

-pinna (L) is the root for feather. We use this root whenever we say that leaves are 'pinnate', that is, arranged featherlike on either side of a common axis. The beautiful Purple Phacelia is named *Phacelia bipinnatifida* because its cauline leaves are twice or bi-pinnately divided. In ferns, a pinna is the leaflet or first division of the leafy part of the frond. The pinnules are divisions of the pinnae (plural of pinna).

Pedi- (L) and **Podo-** (G) refer to foot. *Cypripedium acaule*, literally translated, means Venus' (Cypri) slipper (pedium) stemless (acaule); we call it Pink Lady's Slipper. *Acaule* refers to the fact that it has no leafy stem. *Podophyllum peltatum* (Mayapple) means foot (Podo) leaf (phyllum) with the leaf attached to the stem at the center, not at the edge (peltatum).

The landscape architect, Doan Ogden contributed greatly to the gardens of Asheville and the nearby regions of North and South Carolina, Georgia, Tennessee and Virginia. He grew up in Michigan and got his early gardening experience working in neighbors' gardens. He received his degree in landscape architecture from Michigan State University just as the stock market crashed in 1929. He was fortunate to obtain a position at the Farm School, now Warren Wilson College. For the next four years he supervised student work groups in landscaping the campus. During those years he married Rosemary Mason and he and his wife grew to love the southern Appalachian area with its natural beauty and diversified flora.

Doan's position at the Farm School was dropped because of the Depression, and he and his wife returned to Michigan where he worked as chief landscape architect for the Pontiac Nursery Company. Each summer the Ogdens returned to vacation in Asheville and they resolved to return permanently as soon as possible. In 1948 Doan Ogden was able to establish his practice in Asheville and for the next 41 years until his death, he added beauty to the whole region through his landscape designs for over 2000 clients.

In 1960 the Asheville-Biltmore Botanical Garden was established (now the Botanical Gardens at Asheville). Doan was attracted to the project by its goals not only to conserve and display the native plants of the region but to educate the public about these plants. These goals were consistent with his own interests and beliefs so he accepted an offer to advise on landscape architecture for the Gardens.

Doan had an exceptional ability to visualize an esthetically pleasing landscape from a topography. He applied this talent to the area set aside for the Botanical Gardens. His plan was to build attractive trails that led sequentially through contrasting areas so the visitor progressed from one experience to another. Though the development of the Gardens has continued over the years, Doan's initial plan still forms the basic pattern.

Today the design is seen as the visitor is led from the entryway and visitor's center across a bridge to a meadow, then by a woodland path up and around a hill to another lawn near the frontier "dog-trot" cabin. From there the path continues down a cove, past a seep, and along a tiny stream to a large meadow surrounded by trees, shrubs and wildflowers. Here the visitor walks through a woods beside a fast flowing and splashing stream over two bridges and back to the entryway.

The Gardens today stand as a memorial to many dedicated volunteers of whom Doan Ogden was certainly among the first.

Lowell Orbison, who wrote this article for Shortia, is himself a dedicated volunteer at the Botanical Gardens at Asheville and a long-time member of the Botanical Club.

Doan Ogden's home and gardens are located in south Asheville. They are now owned by John Cram and are sometimes open to the public.

The campus of Haywood Community College was also designed by Doan Ogden.

For every man
the world is as fresh as it was at the first day
and as full of untold novelties
for him who has the eyes to see them.

-T. H. Huxley

We have had and now have many knowledgeable members in the Club but never have I known one who could say he knows it all. In fact I've often heard knowledgeable members say of a plant identification, "I don't know". The ancient Chinese masters taught that the "don't-know" mind is forever fresh, open and fertile with possibilities. They also called it "beginner's mind". *

This month, Tom Ferguson, a fellow volunteer working on the Carl Sandburg Herbarium project, and I spent a few hours with two professional botanists, Alan Weakley and Rickie White. Both men are now working for the Association for Biodiversity Information. Alan and Rickie were spending four days in Flat Rock laying out plots for an extensive monitoring and mapping project at the Carl Sandburg National Historic Site.



Tom and I took some specimens collected on Sandburg property to the meeting - specimens whose identity was uncertain to us. One of the plants in question was a *lysimachia* Tom had collected in a seep near a rock outcrop. We had identified it as *Lysimachia quadriflora*, prairie or smooth loosestrife.

That evening we each used our "don't-know" or "beginner's" mind as we studied the mounted specimen. A problem was that this plant is far from common in N.C. Alan has listed it in his Flora of the Carolinas and Virginia. Working Draft of May 15, 2000 as "very rare and scattered in or east of the Appalachians".

If the botanists confirm the *L. quadriflora* identification, this could be a state record.

Alan and Rickie wanted more time to study the plant and so we have yet to hear if our identification is correct.

Lysimachia quadriflora

*From "We Are All Beginners", Meridians, Autumn 1998.

SHORTIA

Vol. XX111 No. 3

Autumn 2001

A quarterly publication of the Western Carolina Botanical Club

Editor: Anne Ulinski

Editorial Assistance: Pat Arnett

Please submit contributions for the next issue by November 15 to: Anne Ulinski
1212 Chanteloupe Drive, Hendersonville, N.C. 28739

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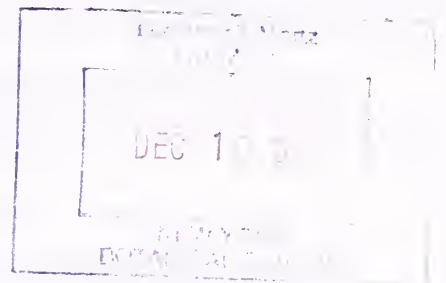
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SHORTIA

NEWSLETTER OF THE
WESTERN CAROLINA BOTANICAL CLUB
WINTER 2001



Shortia galacifolia

Oconee Bells

WESTERN CAROLINA BOTANICAL CLUB - 2001

President: Bonnie Arbuckle
Vice President: Helen Smith
Secretary: Peggy Ellis

Treasurer: Rachel Conway
Recorder: Betty Jones
Historian: Dana Herman

FROM THE PRESIDENT..... Bonnie Arbuckle

The Holly (*Ilex opaca*) trees by the front walk are covered with red berries; a reminder that the holiday season is approaching. I will cut branches to bring into the house for decoration. In Plants of Christmas by Hal Borland I learned that Holly was known and revered by the British Druids and Roman pagans. In Britain it became traditional to hang sprigs of Holly about the house as hiding places for Christmas elves and fairies.

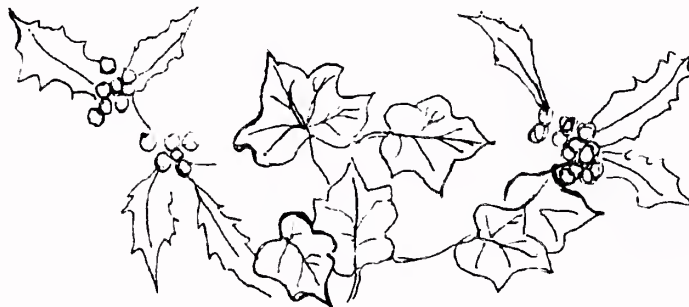
English Ivy (*Hedra helix*) is also a traditional plant of Christmas. To the Greeks it was a symbol of happiness, fertility and honor. They considered Ivy to be a man's plant and Holly a woman's plant . Poles twined with Holly and Ivy were set up for Christmas games and sports.

The club mosses, *Lycopodium clavatum* and *L. flabelliforme*, plants native to our area and associated with the Christmas season have a long history of use as Christmas decorations.

As you bring your favorite greenery into the house this season, bring it in a spirit of peace and goodwill to people of all nations.

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At our Annual Meeting this year, we would ask members to share one of their favorite botanical or natural history books with the group. Plan to bring your favorite and tell us why it is a special to you.



Cover: The flower on the cover is *Shortia galacifolia*, Oconee Bells. Our newsletter is named for this southern endemic which is now rare in the wild.

NEW MEMBER.....Lois McDaniel

Paula Robbins: 43 Vermont Court A 3, Asheville, N.C. 28806. (828) 281-3523. The author of four books and many articles, Paula writes that she is in her fifth career and second retirement. She lives and gardens in West Asheville and is a volunteer garden guide at the N.C. Arboretum.

MEMBER NEWS

Barbara Allen will co-lead two "Best of Europe" garden tours this year. Her co-leader is Michael Smith, a professional tour guide with a degree in horticulture. Michael's own garden is in Pont-Remy, France.

The first tour will include both private and estate gardens in Cote D'Azur and Provence from March 19-March 30, 2002. The second tour will be to Scotland, the Lake district of England and to Wales from August 5-16. For more information contact Barbara. Her address is: 5 River Court Parkway NW, Atlanta, Georgia. Tel: (770) 393.3451 and her e-mail address is <jandballen@mindspring.com.> Look for brochures at our indoor meetings.

Barbara Hallowell reports she has finished work on the second edition of the Fern Finder, the little green fern guide familiar to many of our members and that the new edition is out. It includes updates on scientific name changes and range maps. Barbara and her daughter, Anne, wrote the first edition in Hendersonville in 1980. If you are buying you first Fern Finder or replacing your present one be sure to ask for the second edition.

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MICHAUX SYMPOSIUM

A major international symposium featuring the life, works and times of Andre Michaux, noted French explorer, collector and botanist, is being planned for May 15-19, 2002. The Symposium will feature talks and presentations, workshops, field trips, historical re-enactments and other activities that should appeal to a variety of audiences.

The Symposium is to be held at Belmont Abby College, Gaston County, N.C. For more information contact AMIS, P.O. Box 942, Belmont, N.C. 28012, (704) 868-3181 and visit the web site at: www.michaux.org/amis.htm



Magnolia macrophylla Michaux
Big Leaf Magnolia

Timing was perfect for seeing Turk's Cap Lilies (*Lilium superbum*) and Leatherflower (*Clematis viorna*) in full bloom on the **Shut-In Trail** at the end of July. Over 90 plant species were identified and 72 of those were in bloom. This is a great trail for viewing summer flowers in bloom and spring flowers in seed.

The Haywood Gap trail has been quite overgrown in the past few years, so it was decided to go a mile further south on the Parkway and walk from the **Bear Pen Gap** parking area. After a walk through the woods where the bright red berries of the Rosy Twisted Stalk (*Streptopus roseus*) caught ones eye, the path opened out onto a splendid display of Phlox in the meadow. Green-headed Coneflower (*Rubeckia laciniata*) was abundant.

Although the **Graybeard Trail** walk is not an easy one, our efforts are always rewarded with an exciting variety of plant life. Michaux's Saxifrage (*Saxifraga michauxii*) borders the path for much of the upward climb. We spotted the tiny Kidney-leaved Twayblades (*Listera smallii*) and several patches of Indian Pipes (*Monotropa uniflora*). Beautiful Pasture Thistles (*Cirsium pumilum*) had attracted butterflies to the balds. We were unable to locate the Gray's Lily (*Lilium grayi*) that we had seen in prior years.

Our walk at the **Horsepasture River** took us past Turtleback Falls and up to a view of Rainbow Falls. Unfortunately, the trail was badly eroded and the lookout area at Rainbow Falls showed no recent signs of maintenance. Flowers were most abundant in the open area near the road and at the Rainbow Falls view area. Lunch was interrupted by a brief rain shower.

It was pleasant and sunny when we left the Ranger Station, but at **Frying Pan Gap**, we encountered heavy fog and very strong winds. The Sunflowers (*Helianthus decapetalus*) were spectacular and abundant. We found but one Intermediate Dogbane (*Apocynum medium*) plant in bloom, but we were pleasantly surprised to find a small patch of Pale Corydalis (*Corydalis sempervirens*) at the top of the hill near the tower. Mugwort (*Artemisia vulgaris*) was showy and abundant. My favorite was Spotted Knapweed (*Centaurea maculosa*).

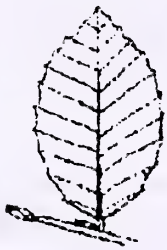
It was with heavy hearts that 15 members walked the paths at **Jackson Park** the week of the attacks on the World Trade Center and the Pentagon. The fields were especially colorful with Asters, Joe-Pye-Weed, Ironweed and Purple Gerardia (*Agalinis purpurea*) in full bloom. Five species of Polygonum were identified.

"It was one of those glorious days in the mountains: crisp air, blue skies, fabulous views, and beautiful flowers." So reports the recorder for the **Blue Ridge Parkway South** (Wagon Road Gap to Wolf Mountain Overlook) walk. The highlight of the outing was the stop at Wolf Mountain Overlook where the group of 21 saw Grass-of-Parnassus (*Parnassia asarifolia*), Stiff and Bottled Gentian (*Gentiana quinquefolia* and *G. clausa*), Round-leaved Sundew (*Drosera rotundifolia*) and Pink Turtlehead (*Chelone lyonii*).

Gary Kauffman, botanist with the U.S. Forest Service, led a group of 12 walkers through the **Buck Creek Serpentine Barrens** near Franklin. This ecosystem is ranked G1, globally imperiled, and is unlike any other in the world. Two endangered species were found in bloom: Bigleaf Grass-of-Parnassus (*Parnassia grandifolia*) and Fringed Gentian (*Gentiana crinata*). Grasses were given special attention.

This summer I attended a walk led by Dan Pittillo on the Western Carolina University Campus. Dan handed each of us small branches of American Beech (*Fagus grandifolia*), American Chestnut (*Castanea dentata*) and Allegheny Chinquapin (*Castanea pumila*). Most everyone knew the *Fagus grandifolia* but the other two were more difficult. When identifying trees in the field, we were advised to observe whether the stems and leaves were hairy and to notice the shape, nature and arrangement of the leaves, the nature of the buds and bark, and the habitat. Dan told us that when we are using the keys, look for that special something that makes a tree unique.

American Beech: A native deciduous tree usually 65-80 feet tall but can grow up to 130 feet and live over 300 years.



Bark: Smooth, blue gray with a silvery glow

Leaves: Elliptical and coarse toothed

Buds: Many scaled, long and slender with a sharp point

Flowering: March to May

Fruit: A burr usually containing 2-3 edible nuts, September to October

Habitat: Bottomlands and gentle slopes

American Chestnut: Originally a large tree, 70-90 ft. tall but now existing primarily as sprouts growing from old stumps and not more than 10-15 feet tall

Bark: With numerous wide-topped ridges

Leaves: Hairless with wedge shaped bases and coarsely serrated margins

Buds: Blunt, with few scales

Flowering: June to August

Fruit: Edible, with two-three to each spiny husk, September October.

Habitat: Gently rolling country with sandy loam to rocky hillsides



Allegheny Chinquapin: A native deciduous large shrub or small tree with a mature height 6-15 feet

Bark: Smooth with shallow furrows

Leaves: Elliptical with widely spaced bristles, acute apex and unequal base

Flowering: July

Fruit: Edible nuts occurring singularly in husks with hairy spines, September October

Habitat: Sandy or rich soil on hillsides and swamp borders

Note: All three species are in the family, *Fagaceae*



As I pulled excess sensitive, marsh, and maidenhair fern from my garden recently, it occurred that WCBC friends might enjoy hearing what has become of the 34 species of native ferns I grew in my Hendersonville garden, most from spores. Since arriving in south-east PA in July '94, all but five have done well. Walking, climbing, adder's tongue, wall-rue, and Scott's spleenwort struggled 5-6 years, then disappeared--and I've added several species, e.g. Clinton's.

My garden, a 6' x 90' strip, extends around three sides of our one-story apartment. Sourwood, serviceberry, and stewartia (non-native) trees and spice bushes shade much of it. Mixed in with ferns grow native wildflowers, e.g. yellow lady slipper, given by a friend who had too many.(!) Cardinal flowers thrive, too.

Our first spring here, needing more shade, we hunted sassafras. Unable to find any to dig up, we looked in nurseries--it's about as easy to find as a potted dandelion! But success came, and two stems have multiplied to about three dozen. A small clump of river birch planted that same spring has zoomed to nearly 40 feet. Think native!

Our apartment is one of nine which surround a courtyard out front. For years it had only three lollipop-shaped Norway maples and a struggling lawn--unattractive and sterile for wildlife. A neighbor and I decided to act. After much study and lots of talk, two springs ago we watched workmen remove the maples, mix leaf mulch into the soil, and plant about 75 shrubs, 2/3 native, and six trees--silverbell, river birch, crabapple, and three "sarvis." We've added ground covers and flowers, and by mid-2002 are sure to be wielding machetes! Our bird list grows, including hummingbirds, and butterflies and bunnies abound. Rudbeckias, monarda, and cardinal flowers are especially eye-catching. I note that people walking by now study the court-yard as they walk rather than just looking ahead at pavement.

So, WCBC friends, though we haven't the Southern Appalachians to hike nor the fellowship of wonderful WCBC folks, we're still enjoying PLANTS!--and can even walk in our community's 110 acre woods that has climax forest tulip, beech and oak trees--and too many deer!

We are blessed with good health and 11 beautiful grandchildren.

Wish we could show up for your great-sounding field trips and overnights. Looking at the WCBC list, we realize we know only a few members now, but we'd have lots in common with all--such as those lovely mountains with their wealth of trees and shrubs and ferns and flowers. May you enjoy them fully!--as I enjoy my NC ferns here.

Barbara Hallowell was a founding member and first secretary-treasurer of the Western Carolina Botanical Club. She wrote the book Cabin about experiences with family, nature and local people at the family cabin west of Hendersonville. She also collected material for her book of Southern Appalachian nature essays, Mountain Year.

List of Ferns in Hallowell Garden as of October 2001

Brought north from Hendersonville in 1994:

Adiantum capillus-veneris--southern maidenhair
A. pedatum--northern maidenhair
Asplenium platyneuron--ebony spleenwort
*A. scolopendrium (formerly Phyllitis sc.)--hart's tongue
A. trichomanes--maidenhair spleenwort
Athyrium filix-femina--lady fern
Botrychium dissectum--dissected grape fern
Cystopteris bulbifera--bulblet fern
C. fragilis--fragile fern
Deparia acrostichoides--silvery glade fern
Dennstaedtia punctilobula--sensitive fern
*Diplazium pycnocarpon (formerly Athyrium pyc.)--glade fern
Dryopteris campyloptera--spreading wood fern
D. cristata--crested wood fern
D. filix-mas--male fern
D. goldiana--Goldie's fern
D. intermedia--evergreen wood fern
D. marginalis--marginal wood fern
Matteucia struthiopteris--ostrich fern
Onoclea sensibilis--sensitive fern
Osmunda cinnamomea--cinnamon fern
Osmunda claytoniana--interrupted fern
Osmunda regalis--royal fern
*Phegopteris hexagonoptera (formerly T. hexagonoptera)--broad beech fern
Polypodium virginianum--common or rock polypody
Polystichum acrostichoides--Christmas fern
Thelypteris noveboracensis--New York fern
Woodsia obtusa--blunt-lobed woodsia
Woodwardia areolata--netted chain fern

Native species brought north in '94 but lost since:

*Asplenium ebenoides (formerly Asplenosorus eb.)--Scott's spleenwort
*A. rhizophyllum (formerly Camptosorus rh.)--walking fern
A. ruta-muraria--wall-rue
Lygodium palmatum--climbing fern
*Ophioglossum pycnosticum (formerly vulgatum)--adder's tongue

Non-native species brought north and still growing:

Lygodium japonicum--Japanese climbing fern
Athyrium niponicum v. Pictum--Japanese painted fern

Native species added since 1994:

*D. carthusiana (formerly spinulosa)--spinulose wood fern
D. clintoniana--Clinton's wood fern
Gymnocarpium dryopteris--oak fern
*Phegopteris connectilis (formerly Thelypteris phegopteris)--narrow beech fern
Thelypteris palustris--marsh fern

* Scientific name has been changed in recent years

For 15 years I lived in a log cabin at the foot of Peters Mountain in West Virginia. I had bought the land, an old farm of 200 acres, in 1968. My husband and I built the log cabin when we moved there in 1971.

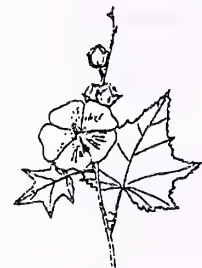
Peters Mountain is one of the better sites for hawk watching. It is part of a ridge which runs in an unbroken line, a distance of about 40 miles along the border between Virginia and West Virginia. To the north the flyway continues and joins parts of Back Allegheny Mountain and the Warm Springs Mountain. To the southwest it is intersected by the New River and then becomes Clinch Mountain, another good hawk ridge running through southern West Virginia and on into northeast Tennessee.

Of course hawks are not the only migrants traveling along the mountains of the ridge and valley. Dolly Sods in northeast West Virginia is popular with bird banders as well as hawk watchers as birds go south in the fall and travel back to breeding areas in the spring.

Botanically this makes for an extremely rich and interesting place to explore. Both southern and northern plant seeds are dropped by the birds and possibilities of finding different and even rare plants is exciting. As I began to notice a different plant I would key it out using Strausbaugh and Core's 4 volume Flora of West Virginia. I began a correspondence with Dr. Core which went on for many years and I added several new species to the West Virginia University's herbarium plant list.

Dr. Core was Professor Emeritus of Botany at West Virginia University at the time I began to write him. His letters were full of his past and present experiences. He was most pleased that he had discovered a plant (later named after him), *Illiamna corei*, Peters Mountain Mallow. Later in his life he returned to the original population which was on the Virginia side of Peters Mountain. He hoped to find the plant growing in West Virginia but neither he nor any of the other diligent seekers have been able to find another colony. Deer apparently like Peters Mountain Mallow and young plants are adversely affected by drought.

When Dr. Core discovered the first colony in 1927 there were about 50 plants; by 1989 only four remained and these were then enclosed by a high fence and the plant was placed on the federal endangered species list. Complicated experiments by horticulturists, Virginia state agents and The Nature Conservancy have successfully scarified the hard seed coat found in leaf litter and increased the gene pool, making Peters Mountain Mallow more viable. But it continues to be one of the rarest plants on earth.



Illiamna corei
Peters Mountain Mallow

Thanks to one of our newest member, Bet Fontaine, for sharing with us her memories of Dr. Core and providing us with a sketch of the Peters Mountain Mallow.



Tsuga canadensis,
Carolina Hemlock

"I wanted it preserved like it is", Tom Florence said in a recent interview with Harrison Metzger of the Hendersonville Times-News. "I did not wish for any development to occur on it, because its natural state is its best state."

Tom is speaking about 600 acres of mountain land on the slopes of Little Pisgah Mountain in the northeast corner of Henderson County. He and his wife Glenna acquired the property in 1966. A practicing physician in Atlanta, Georgia, Tom brought his family to the Gerton property in the summer, building a cabin and later a permanent home.

In 1996, working with the new local land trust, the Carolina Mountain Land Conservancy, Tom and Glenna decided the best way to protect their land was to donate it to the Conservancy. The first land transfer was in 1996 and the final transfer was made in October of this year.

The land which the Conservancy has named the Florence Preserve, has six forest communities, two containing "old growth" forests. An unusual feature is a Carolina Hemlock Bluff. Rare plants so far identified are: *Coreopsis latifolia*, Broadleaf Coreopsis, *Bromus nottawayanus*, Nottaway Brome Grass, *Hydrangea cinerea*, Ashy Hydrangea, and *Heuchera parviflora*, Grotto Alumroot. There are several waterfalls and the remains of the old Buncombe Turnpike runs through the land, the principal road for many years from the mountains to the lowlands to the south.

Several years ago with a grant from the Community Foundation of Henderson County, work was begun on a detailed management plan for the Preserve. Plant inventories were conducted, existing trails were mapped and guidelines were defined for the future use of the property. Volunteers are continuing this work as well as monitoring plants and plant communities. Although closed to the public, the Conservancy plans guided tours and the granting of permission for study to ecologists and naturalists.

The Florences have kept title to 30 acres of land surrounding their cabin and permanent home. Under an informal agreement with the Conservancy, Tom and Glenna and their family will continue to enjoy their land and serve as monitors and advisors on its care.

Tom and Glenna Florence have been members of the Botanical Club for many years and so we have a special pride in recognizing this gift of their mountain land.

*The title, "Forever Wild," is from the Harrison Metzger article in the Times-News of October 11, 2001.

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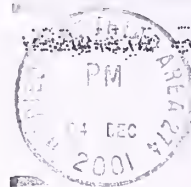
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